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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/900,779	07/06/2001	Michael K. Brand	12177/21101	7688

7590 06/13/2005

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New York, NY 10004

EXAMINER	
SHARON, AYAL I	

ART UNIT	PAPER NUMBER
2123	

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/900,779	BRAND ET AL.	
	Examiner	Art Unit	
	Ayal I. Sharon	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *4/11/05*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13 and 15-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13, 15-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 May 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4/11/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Introduction

1. Claims 1-13 and 15-22 of U.S. Application 09/900,779, originally filed on 7/6/2002 are presented for examination. Claim 14 was cancelled in the amendment filed on 4/11/2005.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-13 and 15-22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are directed to an abstract mathematical algorithm which is not implemented in the technological arts, for example, in a computer or on a computer readable medium. The claimed invention is therefore not concrete or tangible. See MPEP §2106 (A), and *In re Warmerdam*, 33 F.3d 1354, 1360, 31 USPQ2d 1754, 1759 (Fed. Cir. 1994). See also *Schrader*, 22 F.3d at 295, 30 USPQ2d at 1459.

Response to Arguments

Re: Claim Rejections - 35 USC § 101

4. In regards to the rejections of Claims 1-9, 11-19, 21 and 22, Applicants unpersuasively argue (see p.6, amendment filed 4/11/2005) that:

> Claim 1 recites a new and useful method that is not purely a mathematical algorithm.

Examiner respectfully disagrees. Dependent claims 10 and 20 recite the limitation of "wherein said step is performed using a computer program." Examiner interprets, therefore, that the scope of independent claims 1, 21 and 22, which do not contain this limitation, are therefore not restricted to being implemented on a computer. Examiner finds this to be the broadest reasonable interpretation of these claims. These independent claims are therefore not restricted to the technological arts, and when not implemented using a computer program, are merely mathematical algorithms.

5. The Applicants also argue unpersuasively (see p.6, amendment filed 4/11/2005, emphasis added) that:

> Consider, for example, "determining accelerated stress testing data ..." as recited in independent claims 1, 21, and 22. Such determining of accelerated stress testing data **could** include the physical acts of applying various stress regimens to a product.
>
> See, for example, the second paragraph on page 7 of the present specification, wherein it is described how multiple axis vibrational tests, rapid temperature transitions, high/low temperature limits, voltage margining and the like **may be applied** to a product to determine its stress limits. Accordingly, the rejected claims recite statutory subject matter.

Examiner interprets that the Applicants are attempting to argue that the claims meet one of the three possible "safe harbor" requirements, that of "the measurements of physical objects or activities to be transformed outside of the computer into computer data" [see MPEP § 2106 (IV)(B)(2)(b)(i) for details about the "safe harbor"]. However, as discussed in the previous paragraph, the independent claims do not limit the invention to a computer. This is only done in dependent claims 10 and 20.

6. Moreover, Examiner finds that the requirements for the relevant "safe harbor" are not met by these independent claims. More specifically, it is noted that the features upon which applicant relies (i.e., "determining accelerated stress testing data ...") are not specifically recited in the rejected claim(s). In other words, the independent claims make no reference to the physical tests listed in the specification. Instead, the claims recite "determining accelerated stress testing data for the product using the relationship $t_F = AF \times \exp(t_A)$." There are no claimed limitations of physical tests *per se* in independent claims 1 and 22.
7. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).
8. Of the independent claims, only independent claim 21 includes the limitation "... wherein the accelerated stress testing data is derived from a plurality of different stress tests."

Re: Claim Rejections - 35 USC § 112

9. Applicants have cancelled claim 14. The 35 USC § 112 rejections of this claim have therefore been withdrawn.

Re: Claim Rejections - 35 USC § 102

10. Examiner has found Applicants' arguments regarding the 35 USC § 102 rejections to be persuasive.

11. In regards to Independent claims 1, 21, and 22, the original rejections in view of Analog Devices's Reliability Handbook included the following statements (emphasis added):

> Applicants' equation, $t_F = AF \times \exp(t_A)$, can be rewritten as $AF = t_F / \exp(t_A)$.
>
> Reliability Handbook (p.11) teaches a temperature acceleration factor where AF = t1 / t2.
>
> Reliability Handbook (p.11) also defines "t1" and "t2" as "Mean Time To Failure (MTTF) at T_{TEST} and T_{USE}". Page 12 teaches that MTBF and MTTF are corresponding terms.
>
> **Examiner finds the two formulas to be corresponding when t_A and t2 are small numbers.**

12. Applicants have argued the following in their response (see p.6, amendment filed 4/11/2005, emphasis added):

> The rejected claims are allowable over RH for at least the reason that RH does not disclose the relationship $t_F = AF \times \exp(t_A)$ as required by independent claims 1 and 21.
>
> The Examiner points to equation (1) on page 11 of Reliability Handbook as corresponding to the claimed relationship. The Applicant respectfully

disagrees. **The alleged equivalent formula, t1/t2, is simply a linear ratio. The claimed relationship, by contrast, is a non-linear function of time. The two are not equivalent.**

13. Examiner finds that the Applicants' equation differs from the equation in the prior art. Therefore, the 35 U.S.C. §102 rejections have been withdrawn.

14. However, the since the claims are directed to mathematical algorithms that are not necessarily implemented in the technological arts, they are not patentable under 35 U.S.C. §101.

Re: Claim Rejections - 35 USC § 103

15. Examiner has found Applicants' arguments regarding the 35 USC § 103 rejections to be persuasive. These rejections have been withdrawn.

Conclusion

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will

the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ayal I. Sharon whose telephone number is (571) 272-3714. The examiner can normally be reached on Monday through Thursday, and the first Friday of a biweek, 8:30 am – 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached at (571) 272-3749.

Any response to this office action should be faxed to (703) 872-9306, or mailed to:

USPTO
P.O. Box 1450
Alexandria, VA 22313-1450

or hand carried to:

USPTO
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center 2100 Receptionist, whose telephone number is (571) 272-2100.

Ayal I. Sharon

Art Unit 2123

June 8, 2005